

Bus N1

# **COST AND MANAGEMENT**

Organization as a Factor in  
Cost Reduction and Control ...

By Gerald S. Fisch

Budgeting and  
Long Range Forecasting ...

By Thomas Chambers

Month-end Closing  
In Minimum Time Lapse ...

By Members of Niagara Chapter, S.I.C.A.

LOSS

*Official Journal of*  
**The Society of Industrial and  
Cost Accountants of Canada**

**JULY-AUG., 1955**

PERIODICAL  
SEP 9 1955  
MICHIGAN STATE LIBRARY

PROF



**MANAGEMENT NOTE**

# **SALARY EVALUATION**

- Up to date, systematic salary evaluation is the accepted best method to insure that your salary structure is adequate, equitable and in keeping with your industry and the community.
- It is the method approved by business itself as the most acceptable and realistic approach to sound salary determination.
- It reduces the need for pure individual and personal day-to-day decisions on salaries and salary administration.
- It improves employee confidence and relations, as the fairness of the method is readily accepted by your personnel.

**Ask your business friends, whose companies have Salary Evaluation,  
what it has done for them.**

*It deserves your investigation*

---

**J. EDGAR DION**

**CONSULTING MANAGEMENT ENGINEERS**

**4643 SHERBROOKE STREET WEST — MONTREAL 6, CANADA  
GLENVIEW 1428**

*Your inquiries are invited—No obligation naturally.*

# *Cost and Management*

VOL. XXIX

JULY-AUGUST

No. 7

## ORGANIZATION AS A FACTOR IN COST REDUCTION AND CONTROL

By GERALD G. FISCH ..... 249

Gerald G. Fisch is presently associated with the Management Consultant firm of Bruce Payne & Associates, Inc. Westport, Connecticut. Until recently, he was General Manager of J. B. Fraser & Associates Limited, and Vice-President and General Manager of J. B. Fraser Executive Placement Consultants Limited. He is a graduate of the Massachusetts Institute of Technology in Industrial Management and in Industrial Engineering and is also a graduate of McGill University, Montreal. This paper was included in the technical sessions of the 14th Annual Ontario Conference of the Society of Industrial and Cost Accountants of Ontario held in May, 1955.

## BUDGETING AND LONG RANGE FORECASTING

By THOMAS CHAMBERS ..... 256

Thomas Chambers is Comptroller of British Columbia Electric Company, Vancouver, B.C. He is Past President of Vancouver Control of Controllers Institute of America and a member of the Institutes of Chartered Accountants of Alberta and British Columbia. Backed by extensive experience as a public auditor and as an industrial administrative accountant in eastern and western Canada, Mr. Chambers has instructed in Financial and Accounting Controls at the Banff School of Business Administration, Banff, Alberta and has lectured to accounting student groups on budgeting and punch card accounting. This paper formed part of the technical sessions at the 34th Annual Cost and Management Conference of S.I.C.A. in June, 1955.

## MONTH-END CLOSING IN MINIMUM TIME LAPSE

By members of NIAGARA CHAPTER, S.I.C.A. .... 266

This paper was the basis for a discussion held at the January, 1955 meeting of the Niagara Chapter of the Ontario Society of Industrial and Cost Accountants. Mr. D. R. Gilmaster acted as moderator, with two other members of the chapter presenting the practices of their companies in handling month-end closings.

## REGULAR DEPARTMENTS

C. & M. ROUND-UP ..... 244

---

Published Monthly by the  
SOCIETY OF INDUSTRIAL AND COST ACCOUNTANTS OF CANADA  
Incorporated 1920

Editorial and Business Offices: 31 Walnut Street South, Hamilton, Ontario  
J. N. Allan, R.I.A., Secretary-Manager and Editor

---

Subscription price to non-members, \$5.00 per year. Single copies, 50 cents. Members desiring five copies or more of a single issue, may obtain them at 25 cents. Opinions expressed by articles and comment are not necessarily endorsed by the Society of Industrial and Cost Accountants.

Authorized as second class mail, Post Office Department, Ottawa.

COST AND MANAGEMENT



CHARLES R. MacFADDEN

## *Our New President . . .*

For the first time in the history of S.I.C.A., a Nova Scotia Member has been elected president of S.I.C.A. of Canada. This honour goes to Charles R. MacFadden, R.I.A., Secretary and Assistant Treasurer, National Sea Products Ltd., Halifax, N.S.

Mr. MacFadden's term of membership in S.I.C.A. is comparatively short, only six years, but in terms of effort and contribution in the advancement of the Society, his period of association has been a most eventful one.

When the Society was being organized in Nova Scotia in 1949, Mr. MacFadden was one of the first to recognize its value to the business life of the province, and having assured himself that there was a definite need for such an organization, he became its most enthusiastic supporter.

His efforts in the organizational stage and subsequent incorporation, were recognized when the charter members elected him the first president of the Nova Scotia Society.

His driving leadership won the admiration and active support of a large group of financial executives throughout the province, which became apparent in succeeding years in the quality of those who were ready to assume responsibility for the various activities. Arrangements were made with Dalhousie University in Halifax, and St. Xavier Junior College in Sydney to conduct the R.I.A. courses. The success of this effort can best be seen in the consistent flow of students from one grade into the next. Last year saw the first graduates receiving the coveted certificate of Registered Membership. During the past three years, he has been Chairman of the educational committee and a lecturer in first year accounting.

In Canadian Society affairs, Mr. MacFadden has made an equally impressive contribution. He has been a member of the national board since the Nova Scotia Society was formed, and has not missed a single meeting since that time. He has also been a member of the Co-ordinating Educational Committee for the past three years with 100% participation.

Mr. MacFadden's business career reflects the same aggressiveness and organizational ability. His first introduction to the art of accounting was as an articled student in a firm of Chartered Accountants, but his interest switched to industrial accounting when he was employed by National Sea Products Ltd., later to rise to his present position. He is also Treasurer and Director of Maritime Warehousing and Transfer Company Limited.

Our new president is one who believes in, and practices, a positive type of leadership which will be very much in evidence during the coming year.

# C & M Round-Up . . .

By N. R. BARFOOT, R.I.A.

## Labour

Some comparative figures on labour as released through various Government departments may be of interest.

Did you know that?

Of every 1,000 persons employed in Canada, 230 are women, while in the U.S. one-third of the working force is women.

The technical personnel section of the Department of Labour now registers 46,023 technical people. Some of the larger groups are chemistry and chemical engineering 6,000, civil engineering 5,600, mechanical engineering 5,500, electrical engineering 4,900, agriculture 3,300, architecture 1,200.

Maximum employment insurance benefits are now \$30.00 per week. Rates vary in the U.S. from \$26.00 per week in Arkansas and Montana to \$30.00 in Arizona and Iowa and a high of \$36.00 per week in New York State.

## The National Debt

### Monthly Review of the Bank of Nova Scotia

The direct unmatured debt .....	\$14,488 millions
C.N.R. bonds guaranteed .....	910 millions
Other liabilities .....	3,456 millions

Gross direct debt .....	\$17,944 millions
-------------------------	-------------------

This may be reduced by the amount of active assets of 6,680 million to a net of 11,264.

The active assets consist of cash on hand, loans to crown companies and to foreign governments, plus the official holdings of gold and foreign exchange.

The relationship of the national debt to income is interesting and is more significant than mere size.

Year	Debt in millions	Interest Rate	National income millions	Ratio to Income
1926	2,439	5.06	4,185	58.3
1946	16,542	2.65	9,821	168.4
1950	15,027	2.60	14,550	103.3
1954	14,488	2.74	18,735	77.3

Here is the ownership of the direct and guaranteed unmatured funded debt.

Bank of Canada .....	2,222 millions
Chartered Bank .....	3,313 millions
Government Accounts .....	1,204 millions
General public .....	8,713 millions

## C. & M. ROUND-UP

By types of securities the latest standing of the direct funded debt shows:

Treasury notes .....	700 millions
Treasury bills .....	890 millions
Victory Bonds .....	6,665 millions
Savings Bonds .....	2,030 millions
Other loans .....	4,202 millions

### Industrial Accidents

Are you aware that Ontario has the lowest rate of permanent disability caused by industrial accidents on the North American continent?

In 1949 the number of allowable compensation cases was 49,423 which meant 4.94 per 100 employees were injured to the point that compensation was payable. In 1954 claims were 57,918 but 4.46 per 100 employees.

To each \$100,000 of payroll 2.58 workmen were injured in 1949. In 1954, the rate was 1.73.

In 1920, of 460,000 workmen under the Act, 31,842 were compensable cases, 2,715 were permanent disabilities.

In 1954 with 1,300,000 workers covered, 57,918 compensable cases were allowed, and 1,994 involved permanent disability awards.

### Metered Mail

Thirty years ago, meters accounted for .06% of Canadian mail. Today the figure is nearly 40%.

As far back as 1904 in New Zealand, a device existed for imprinting a postage paid mark on mail.

In 1920 the first completely mechanical equipment was produced by the Pitney-Bowes people, and officially approved for use in the U.S.

The first Canadian application was approved in July of 1923.

Total postal revenue that year was 35 millions of which \$19,800 was metered.

In 1954 over 119 millions revenue was received by the postal department, of which 44 millions came through metering machines.

### Those Business Conventions

Here are a few figures that may be of interest to you when you are persuading your chief to send you to a convention.

More than 1,000 conventions will be held in Canada this year.

More than 100,000 people will sit as delegates at these regional national, and international conventions.

The modern business man attends mainly for information but in addition, for contacts, to eye competition and generally for good public relations.

Surveys show that men work harder at conventions than at the office, but in a different way.

More than 70 millions will be spent with average cost of \$27.00 per day per person.



## COST AND MANAGEMENT

Large conventions of 2,000 or more delegates require a minimum of 10,000 labour hours of pre-planning.

Toronto leads with 320 scheduled this year. Montreal has 250, Vancouver 100, and Winnipeg close to 100. Quebec City and Ottawa also attract quite a few. For the smaller conventions, summer resorts hold a special added attraction.

### **How Do You Occupy Your Time?**

Here at least, is how management spends its time according to a recent survey.

The average president works a 51 hour week, and spends

- 13 hours on policy making
- 7 hours per week is spent on correspondence
- 5 hours dealing with employee and public relations
- 5.5 hours are spent on travel
- 5 hours are consumed by telephone conversations
- 4 hours reviewing operations is normal
- 10 hours on business problems at home
- 1½ hours in quiet thinking

He spends 63% of his time at Head Office, 26% away in the field, and 11% working at home.

Financial, mining, and petroleum company presidents spend most time on policy and decision making, up to 40% of their total work week.

Manufacturing and petroleum chiefs are the busiest reviewing operations.

Utility and manufacturing executives report heavy burdens of paper work—up to 65% of total time.

---

## PERSONALS

*George Moller, D.Jur., C.A., R.I.A.*, is to continue as Treasurer of Robertson-Irwin Limited, and has been elected a Director of the three companies comprising the Canadian operations of H. H. Robertson Company, i.e., H. H. Robertson Co. Ltd., Robertson-Irwin Ltd. and Robertsteel (Canada) Ltd.

*Duncan Campbell*, a member of the Quebec Society has been appointed Cost Accountant of Robertson-Irwin Limited. He has completed all his examinations and is presently writing his thesis.

*Walter (V) Sucharda, R.I.A.*, formerly of Toronto, has been appointed General Accountant of Robertson-Irwin Ltd.

*Andy Aitkenhead* has accepted a position with the American Can Company of Canada Limited in Hamilton.

*Cecil K. Wolff, R.I.A.*, has been appointed Comptroller of Computing Devices of Canada Limited.

*George K. Hutchings* has been elected Vice-President in charge of finance of the Smith Manufacturing Company Limited.



## *Books in Review . . .*

### **"JOB EVALUATION"**

(2nd edition) by Jay L. Otis and Richard H. Leukart; published by Prentice Hall Inc., New York, 1954; p.p. 532, bibliography and index, price \$6.50. U.S. Reviewed by R. E. Oliver, C.A., R.I.A., Hamilton.

The authors of this book have set as their goal the preparation of a comprehensive text-book on job evaluation. They have aimed at making it unnecessary for students, union officials, personnel officers and employees to look elsewhere for guidance in this field. The numerous references to other writings and the long bibliography should prove that the authors have covered most of the current literature on behalf of their readers. What the authors expound in their book is considerably clarified and crystallized by many quotations and illustrations chosen from their researches. For their second edition they have added case problems to each chapter to help stimulate the application of their teaching to every day situations.

The authors have succeeded in digesting most of the current thinking and current writing about job evaluation. Their book deals with most facets of job evaluation. However, in the book is sufficient of professorial redundancy to make it difficult for the reader to persevere to its end. Portions of the book require a knowledge of the mathematics of statistics which will put those portions beyond the grasp of most readers from industry. In other portions self-evident elementary points are laboured to the limits of the reader's patience. Nevertheless its workmanlike qualities gained a satisfactory acceptance for the first edition of this book.

One of the principal virtues of this book may be its timeliness in the introductory chapters of the book; the authors give a clear and objective exposition of the advantages of job evaluation. They stress that good intentions are no substitute for an equitable system of job evaluation which evaluates the job rather than the person occupying it. Many employers have delayed a complete job evaluation because experience has shown that a net increase in the average labour cost has usually been the first result. They realize that job evaluation will easily correct the underpaid employee's wage but will only correct the overpaid employee's wage with difficulty. Now, when another round of increases seems to be impending for our economy, might be an opportune time for an employer to install job evaluation and make the desired adjustments in relative wage rates.

**COST AND MANAGEMENT**

**PAYNE, PATTON & PUGSLEY**

**CHARTERED ACCOUNTANTS**

Gordon S. J. Payne, C.A.

Donald R. Patton, C.A.

Philip T. R. Pugsley, C.A.

Suite 14, The Linton,

1509 Sherbrooke St. West

Montreal, Que.

**CANADA'S FIRST BANK**

**"MY BANK"**

TO 2 MILLION CANADIANS



**BANK OF MONTREAL**

WORKING WITH CANADIANS IN EVERY WALK OF LIFE SINCE 1817

**POSITION OFFERED**

Industrial concern in Niagara Peninsula requires accountant, age 25 to 35, with University or accounting degree. Previous industrial experience not necessary. Must have leadership qualities, initiative and ability to accept responsibility.

**Box No. 49**

**COST AND MANAGEMENT**

**31 Walnut St. South, Hamilton, Ont.**

# Organization as a Factor in Cost Reduction and Control . . .

By GERALD G. FISCH,  
Management Consultant,  
Toronto

*The core of Canada's industrial approach is the reduction and control of costs, and it is to our success in this pursuit that we owe our present high standard of living.*

*In this article, Mr. Fisch encourages the consideration of the human factor, and pinpoints the relationship of careful organization and worker incentive to cost reduction.*

**A**T THE present time, Canadian Manufacturers are facing increasing foreign competition. From the United States we are competing with mass production runs for a market 10 times the size of the Canadian market, coupled with superb research and engineering facilities. From Europe, England and Japan, we find competition in terms of very low labour costs and much lower general living standards as compared to Canada. In this general business environment, DESIGN FOR COST CONTROL is a very apt and timely theme for this conference.

## Organization's Place in Cost Reduction

How does organization fit into a programme of cost reduction and control? Perhaps, we might begin by considering the history and present state of organizational knowledge. Organization has been in existence ever since the first group of men banded together to hunt, to build and to fight. As early as biblical times it was written, "See-est thou a man diligent in his organization. He shall stand before Kings; he shall not stand before mean men." (Proverbs 22:29). The great armies of antiquity of Alexander, Julius Caesar and others were superbly organized. The churches, the military and the political states have offered much evidence of man's organizational ingenuity and folly.

Turning to the 1900-1925 period, we find the beginnings of the scientific management movement spearheaded by F. W. Taylor, Gantt, Gilbraith and others. In the industry of their time, they found an emphasis on technology and almost a complete absence of formal planning. In partial remedy of the problem of unplanned management, these men conceived organization as a system of charts, and job definitions, coupled with such basic management tools as methods analysis, time study and work simplification. Acceptance of these "new" ideas was slow. Even yet, many companies are still learning to apply these principles which were developed 50 years ago. As companies grew in size and complexity, many important functions were removed from direct manufacturing and sales activity. For example, in manufacturing, a foreman used to hire and fire all personnel in his department in addition to planning, scheduling, inspection and other functions. Gradually, personnel, production control and inspection became separate STAFF functions in many organizations.

\*An address presented at the 14th Annual Ontario Conference.

## COST AND MANAGEMENT

In terms of supervisory control, the scientific management movement evolved the "span of control" principle whereby it was held that any given supervisor should not control more than five persons. Also at that time, the authority of the BOSS was absolute, subject neither to the restraints of government regulations nor the pressure of strike actions by organized labour.

It was not until 1933 that government became a major factor in the control of business practices through taxation and a multitude of regulations and legislation; also by the late forties, unions were firmly established as permanent residents of the industrial scene, capable and ready to exercise considerable power and control over the actions of management.

Starting in 1927 a series of experiments were begun at the Hawthorne plant of the Western Electric Company in the United States, which became the foundation of a great body of new knowledge in the field of organization. Such books as "Management and the Worker" by Roethlisberger, Dickson & Wright and "Human Relations in Industry" by Gardner & Moore became the classics and perhaps the bibles of a new movement in the field of organization and management. It was found that willingness to work and the human desire to please a supervisor produced startling increases in productivity; conversely despite time study, plant layout and work simplification, autocratic work-oriented supervision invariably resulted in much lower output by production workers than people oriented supervision.

### Work Incentive

A company was found to be social system very much as a family is a social system; each system seemed to have its taboos and punishments and its rewards. For example, in any given company, the organization chart, manuals and management instructions tended to set up a formal organization; however the employees themselves through friendships, animosities and personal aims and objectives were conceived as forming an informal organization whose aims and objectives might run quite contrary to those of the formal organization under a management whose basic understanding of the true motivation of human organizational behaviour might be limited.

In all motivational studies, money was found to be a secondary factor in most instances. Most successful executives for example seem to have strong achievement and recognition needs first, and only then desires toward material rewards and prestige. Workers value a sense of belonging, a friendly place in which to work and security from arbitrary dismissal ahead of high wages. Office workers were found to be very prestige and status conscious.

In summary, we see that an industrial organization may be conceived as a group of people whose dynamic relationships are evolved over many years—working more or less within a commonly understood disciplinary framework where groups and individuals seek to find self

## ORGANIZATION AS A FACTOR IN COST REDUCTION AND CONTROL

expression and satisfaction through working towards both company, group (e.g. union) and individual objectives—sometimes in harmony and sometimes in conflict.

These new thoughts on organization might well be concluded with the following excerpt from a recent English book by John Harry Jones:

"We work in order that we may live. The means of existence do not fall like manna from heaven. They must be acquired through effort on our part. Nature responds to our endeavour and punishes us for our idleness; she is at once a powerful friend and merciless foe. Being human beings, we seek more than bare existence, and aim at the highest standard of living made possible by the inter-play of natural resources and human intelligence, the latter expressing itself in invention, organization, acquired skill and application. We work and live as members of a community, and our combined intelligence working through the ages has enabled us to build up the present economic system with all its virtues and faults. The system within which we work is a stage in the evolution from something that differed, to something that will again differ from the present system.

But one feature of that system will remain unchanged. We and our descendants, like our ancestors in the past, will always be members of a community and will therefore always work as individuals within an industrial system. This simple fact is of profound significance. Within the limits set by his physical environment, Robinson Crusoe knew that his own economic reward or penalty was determined by his personal efforts. He worked under the influence of a direct and continuous incentive. A standard of life possible to a community however, is determined by the combined efforts of its members, each of whom contributes but a minute fraction to the total. Thus, the standard of life possible to any single member is determined not by his individual contribution, but by the combined contribution of all the others. If, however, he (and each in turn) cease to provide his individual contribution, as being a negligible part of the whole, there would be no reward; the industrial structure would collapse. An industrial system can only operate if it provides and maintains an incentive to individual effort, be that incentive a sense of duty to the community, interest in the work, desire for private gain, or fear of punishment. The central economic problem is the problem of incentive. No structure of industry can be satisfactory which does not contain within itself the necessary incentive, not merely to effort, but also to intelligent and sustained effort.

## COST AND MANAGEMENT

To say that the purpose of industry is to reach and maintain the highest standard of living or the maximum continuous supply of goods and services, committed by natural and human resources, is to repeat a truism. Nevertheless, it is a truism that needs to be emphasized in the present confusion of public discussion. Work is not an end in itself, but the means of producing the things that we need and desire: work as distinguished from recreation, which does not at least aim at contributing to the goods and services desired by the community is purposeless, and represents waste of effort. If a man were seen repeatedly filling a bucket from an incoming wave and throwing the contents back into the sea, he would be regarded as abnormal, and in need of medical attention. Nor is it likely that opinion about him would change if he said that he could find no useful work to do."

Thus any industrial or commercial organization is a group of people who individually and collectively, directly or indirectly

- \*produce all the company's revenue

- \*incur most, if not all the company's costs

- and \*produce or fail to produce a financially profitable end result.

From this line of reasoning, we come to the inevitable conclusion that a Profit and Loss statement, a cost analysis statement or any financial statement is the portrayal of the actions of all the people in the organization.

Having built up a case for the importance of organization, and having explained only a few facets of this interesting topic, we shall next consider how we can use this knowledge to effect important cost reductions; of course the same tools lend themselves to increasing revenue in sales and therefore to maximizing of profits.

Before we begin, we shall take a glance at the limitations which face us in our efforts to maximize profits. It is a fact that in most commercial and industrial enterprises, we seek to work within the law; we are steeped in the social and political ideals of our time, and since our management consists of people, even many company objectives frequently limit profit opportunities, since top management is motivated by other factors besides financial gain. For example, a corporation may put plant expansion and research ahead of high immediate profits. A pension fund may be established to create increased organizational stability. The policy of "satisfaction guaranteed or money refunded" may reduce profits in any given period. While many of these projects or policies may, over a period of many years, maximize profits, it is suggested that management motivation and action is rarely, if ever, guided solely by a maximum profit motive. These ideas seem to be supported by the writings of some of the strongest members of our

## ORGANIZATION AS A FACTOR IN COST REDUCTION AND CONTROL

free enterprise system. Clarence B. Randall, Chairman of the Board of Inland Steel writes in his book "A Creed for Free Enterprise", "production as I see it, is merely a tool to be used by Society for its own advancement. To produce more and more with less and less effort is merely treading water, unless we thereby release time and energy for the cultivation of the mind and spirit, and the achievement of those ends for which Providence placed us on this earth. Surely there must be for each person some ultimate value, some purpose, some mode of self-expression that makes the experience we call life richer and deeper."

### **Achieving Cost Reduction**

We can now turn our attention to some specific tools for reducing and controlling costs in the general area of organization:

#### *Functional Organization Planning and Control*

A pre-requisite to this function is a carefully planned company programme, both short-term and long-term, based on all available facts in a framework of soundly conceived company objectives. With this information, the existing organization can be carefully examined for (a) missing functions b) unnecessary functions c) duplication of work effort and supervision d) elimination of unnecessary or undesirable personnel e) simplification of the organization f) clear and simple definition and description of every job in the organization, including a man specification in terms of education, experience and personal qualities required for each specific position. Other important factors can also be considered. ACTION based on a careful study of the existing organization in relationship to carefully conceived plans and objectives usually results in an improvement in the financial results either in terms of cost reductions or increased revenue or both. Organization planning and control is not a project but a continuing need which, if properly executed, will yield a company major benefits.

#### *Manpower Planning and Control*

The concept of the management of manpower as a resource is relatively recent. Most companies still pay primary attention to the "surgery" function of industrial relations and not enough attention to the "health" function of manpower planning and control. The first step in manpower planning and control is the manpower inventory. This may entail the use of personnel records, interviews, psychological tests for executives and supervisors and questionnaires. When the manpower inventory data is checked against carefully determined organizational requirements both present and future, opportunities for cost savings become evident. Also based on such information, a sound programme of future manpower planning and control can be evolved.



## COST AND MANAGEMENT

### *Manpower Development and Training*

The behaviour of people at work can be profoundly influenced, not only through careful selection, but also through properly planned training and development. Such training might take many forms depending on the needs and resources of the company:—Job rotation, formal lectures, discussions, films, on-the-job training and junior management boards all have their place in any given programme depending upon the specific situation. The rewards of training and development include the following:—Available personnel for promotion from within at a lower cost than the introduction of outsiders; more effective supervision whence lower costs; stronger management orientation whence lower costs; and with sales personnel, higher sales volume at lower cost.

### *Motivation and Leadership*

The tools of motivation and leadership must of necessity be wielded by management and supervision. It calls for knowledge, understanding and application of those conditions under which people at all levels WANT to do their best for the company. To create the environment in which people will do their best frequently takes many years to develop. To provide the necessary leadership requires executives of a high order of human understanding and other personal qualities.

### *Reward Administration and the Maintenance of Schemes of Deterrents*

This device essentially considers money as a motivating factor in relationship to the desired end results, in production, in sales, in supervision, in the executive group and, indeed, for all company groups. Included is not merely wage and salary administration, but also incentive and profit sharing plans, fringe benefits such as pensions and employee benefits and deterrents, such rules relating to lateness, insubordination, violation of safety regulations and the like. By considering all these factors together, the company normally simplifies its policies and practices and invariably tends to gain in efficiency. Usually, worthwhile cost reductions become apparent when considered in proper relationship to value received.

### *Effective Communication*

One of the most important tools for minimizing conflict between the formal and informal organization, is effective communication. Extensive studies have proven beyond all doubt that the more effective communication becomes, the higher the general level of productivity. Thus, communication planning includes the maintenance of clear channels of effective communication both up and down the line. In this way, higher morale results, major work stoppages are avoided and key personnel turnover is reduced. Suggestion systems, company magazines, bulletins to employees, interviews with employees are only some of the tools which may be used.

## ORGANIZATION AS A FACTOR IN COST REDUCTION AND CONTROL

### *Morale Planning and Control*

Morale and attitude studies which are available through a number of reputable consultants, invariably point up both trouble spots and strongholds in the organization. Since morale is known to be a major factor in productivity, regular morale studies usually pay for themselves very quickly.

### *Union and Industrial Relations*

Perhaps there is no greater single expense than a major strike or a continual slow down. The avoidance of such unnecessary costs calls for a basic understanding, not merely of management objectives but also of union objectives and needs. Continuing and effective communication between various levels of management and various levels of union organization is necessary to the maintenance of harmonious relations.

### *Supervision*

Last but not least, there is no substitute for effective supervision when it is desired to operate all parts of the organization at minimum cost. Selection, training, support by top management, effective communication, a high level of technical proficiency and a genuine liking and concern for people are all necessary ingredients in high quality supervision.

In conclusion, we have seen that organization is a major factor in cost reduction and control. Frequently, management consultants are called upon to assist companies in cost reduction programmes involving the solution of major organizational problems. It is sometimes difficult for anyone but an outsider to maintain an unemotional well-balanced viewpoint in the face of the complex human entanglements frequently found in operating organizations. Canadian industry faces a great challenge in meeting competition through building and maintaining topflight organizations willing and able to produce first-rate products and services at minimum cost with a satisfactory return to the investors who are risking their personal savings.

---

---

### FOR FURTHER READING

- COST REDUCTION TO HELP SMALL BUSINESSES—W. B. Edgar, N.A.C.A. Bulletin, March 1954.
- A COST REDUCTION PROGRAMME—P. W. Hoge, American Management Association, Office Management Series No. 133.
- COST REDUCTION IN THE LIMELIGHT—George Moller, Cost and Management, November 1954.

# Budgeting and Long Range Forecasting . . .

By THOS. CHAMBERS, C.A.,  
Comptroller, B.C. Electric Company, Vancouver, B.C.

*The preoccupation of management is with the future—providing for new techniques, new products and demands of an expanding economy. Properly conceived, carefully compiled, and discreetly applied, budgets can be the most valuable and practical aid to management.*

**O**VER the years, there has been an increasing need for more and more accountants of all kinds, professional auditors, administrative accountants and industrial accountants. This is understandable when we remember that despite a high degree of mechanization, clerical workers in Canada have increased from 59,000 in 1901 to 610,000 in 1954. Factors which have contributed to the increase in clerical workers, other than the increase in population, include the greater use of accounting data by Management and the requirements of Government.

The Accountant who shares in developing the plans of a business, and who shares in carrying out those plans, will find job satisfaction beyond his fondest dreams. The industrial accounting field has a good deal to offer the individual, but let us not forget that the individual in this field has a good deal to offer industry. In 1950 a group of British industrialists visited the United States to study management practices in U.S. industry. When their report was issued, one of the important recommendations was that British operating people make greater use of accounting data; the report also pointed out that the industrial accountant in the United States is a more active member of the management team than he is in Britain.

If the industrial accountant is to be accepted as a worthy member of the management team, if he is to gain job satisfaction, he must cover a wider field than keeping books accurately and issuing statements promptly. Budgets and forecasts give him access to the councils of top management, and also make him a valuable member of the group because budgets and forecasts are tools which management needs and uses in carrying out its various functions.

There are basic differences between short term forecasting and long term forecasting. A budget is a forecast, or an estimate; but a forecast is not necessarily a budget. A budget is a detailed financial plan or a short term forecast which is generally used as a yardstick to measure the actual results. Because a budget is in detail and is used as a means of assessing the efficiency of the actual operations, it should cover a relatively short period of time such as the current fiscal period. On the other hand, a long term forecast need not be a detailed plan and should not be used to measure the efficiency of actual results. A budget is a more precise, a more detailed, and a more current tool than a long term forecast. Details of the short term plans up to one year are set

## BUDGETING AND LONG RANGE FORECASTING

out in the budget, whereas the planning for periods longer than a year should be included in the long term forecast.

### The Functions of Management

What are the purposes of a budget? In Heckert's book "Business Budgeting and Control" eleven advantages are outlined. Actually, the main purpose of a budget is to assist management in carrying out its functions. Let us consider some of the functions of management and relate them to forecasting. The first and probably the most important is to plan for the future. Progressive Management realizes that it cannot afford to be tied down with everyday administrative duties to such an extent that no time is available to plan for the future. A recent publication of the Controllers Institute described a reorganization of General Electric and emphasized the importance this Company placed on planning. Procedures currently being developed by Westinghouse highly underscore the importance of planning for the future. Not long ago I had the pleasure of spending a week with Dr. Eugene Burgess of the University of Chicago who was a Vice-President of General Mills, Incorporated. In explaining the organization of that multi-million dollar corporation, he stated that the top management group is expected to spend its time planning for the future. The procedures of many other companies could be used to illustrate the importance that progressive Management places on planning for the future.

To successfully plan for the future, management must have tools or data to assess the alternative plans and to arrive at sound decisions. One of the most important tools that can be used for this purpose is a properly prepared and carefully considered budget. All levels of management should participate in the preparation of a budget so that the final budget represents the plans of the various Department and Division heads who will have the responsibility of carrying out the programme. The senior executives who have the responsibility to the owners (or shareholders) for satisfactory earnings should approve the objectives which have been set by the budget.

Another important function of Management is to co-ordinate the activities of the various Divisions and Departments of the Company. The Sales Division may have plans to extensively advertise a certain product; these plans must be co-ordinated with the capacity available to the manufacturing departments. The Engineering Division may have plans to build new plants or renovate existing plants; these plans must be co-ordinated with the financial position of the Company, with the long term forecasts, and with the current thinking of top management. Budgets require each Division to state its plans in writing, and thus the plans of the various Divisions can be co-ordinated and integrated.

The delegation of authority and responsibility requires that controls be established to assess the effectiveness of management. In this respect, the budget is a most important tool of control as it assists man-

## COST AND MANAGEMENT

agement in judging the results of management policies. Monthly comparisons of actual results with budget allowance will reveal weaknesses which an alert management can bolster, and reveal strengths which can be exploited. The monthly statements permit control by exception, and a busy management has to only investigate those expenses, revenues or cost centres which show wide variances from budget.

The fourth function of Management which I wish to associate with budgeting is the function of follow through, or follow up. Controls, and I look upon the budget as an important control medium, show whether or not objectives are being reached, and indicate which aspects of the business require investigating. With this information, Management should investigate and make recommendations where necessary. The comparison of actual and budgeted results at a later date will indicate the effectiveness of the steps which Management has recommended, and which have been taken to correct any weaknesses. Again the budget proves to be a tool which Management can use to advantage.

To summarize, the budget or short term forecast assists Management in Planning, Co-ordinating, Controlling and Following Through. It only assists Management, it does not take the place of Management; nothing can do that, but a good Management will look for good tools to guide the business to success.

### **Long Term Forecasting**

The long term forecast is also a valuable tool which Management can use in carrying out the planning function. It is not as precise an instrument as the short term budget, but it does influence Management's general thinking about the future. For instance, if the long term forecast indicates that large sums of money must be raised over the next five or six years, this would influence Management's thinking about the future. If the long term forecast indicates sales will be buoyant, plans must be made to ensure adequate plant capacity. This might involve studying plant location and the real estate market. Conditions may change in a year or two and additional plant may not be required; this change in the general thinking would then be reflected in the long term forecast which is prepared from time to time. The long term forecast also has a co-ordinating influence on the various segments of the business; in the process of developing and reviewing the long term forecast the plans of each Division must be considered and co-ordinated with the plans of associated Divisions.

However, in my opinion, it is a waste of time to use the long term forecast data as control media or for purposes of follow through. The long term forecast cannot be accurate enough to make significant comparisons, and with the passage of time there will be so many changes in selling prices, wage rates, design, organization, and so forth, that a comparison of actual results with the long term forecast would be of academic interest only.

## BUDGETING AND LONG RANGE FORECASTING

I believe it is desirable for companies to compile long term forecasts and to revise them at least annually. Its preparation will broaden Management's knowledge of the business and of future business conditions; it may well run up the danger signal requiring Management to revise its policies. It has been said that if Management were to prepare budgets and forecasts and then throw them away they would still serve a useful purpose. I subscribe to this conception of forecasting.

### Types of Budgets

We have not considered the various kinds of budgets; let us do that now. The budget of revenues and expenses, sometimes referred to as the operating budget, generally receives the most attention because it sets the earning target, other objectives, and is also used as a tool of control. The operating budget should follow the form of the monthly statements so that comparisons can be made with actual results. This means the budget detail should follow the code of accounts. The final summary of the monthly statements would be a comparison of budget with actual results for the period, starting out with sales and other revenues, deducting expenses, and finally showing the net earnings available to owners. This statement would be supported by operating statements for each cost centre. Some companies have budgets and standards for parts of their operations such as Sales quotas or standard costs for the manufacturing departments, but they do not have budgets for distribution costs, administration costs and so forth, down to the net profit for the period. In such cases, there are opportunities to compile budgets for the remaining sections of the Company, and develop a complete budget coverage which would be more informative to Management.

The second budget is the Capital Expenditure budget which is such a significant factor in the operations of a Public Utility. It covers the expenditures that are planned for proposed construction projects or the acquisition of other fixed assets. During the past nine years our Company has increased its gross plant from \$155 million to \$340 million; obviously we have had a great interest in our Capital Expenditure budgets. It is desirable to break down the short term forecast of capital expenditure by months so that the cash requirements can be determined. Each month, statements are issued indicating the progress of the capital expenditure programme and relating actual to budgeted costs.

With these two basic budgets, the operating budget, the capital expenditure budget, and other informative statements and forecasts can be prepared. The operating budget indicates the amount of cash which will become available from earnings retained in the business, depreciation charges, Bond Discount write-off, etc. The capital expenditure budget indicates whether or not large sums of money are required for additional fixed assets.

By estimating changes in working capital, dividend rate and several other factors, the amount of cash which will be available or will have



## **COST AND MANAGEMENT**

to be raised, can be estimated. A forecasted balance sheet, earnings employed in the business and source and application of funds statements will complete the set of statements. Each company has particular requirements and the statements which are prepared should be aimed at the needs and wishes of your Management. However, keep the statements to a minimum, as simple as possible and avoid technical language.

### **Budget Administration**

In a large company the supervising of budgets is generally a responsibility of the Controller or equivalent officer. There are exceptions, however, as some companies have an officer, with a title such as Director of Budgets, who has the responsibility of preparing the budgets, and who reports to the Chief Executive. The supervision of the preparation of budgets is not necessarily a function of the accounting division, and many arguments can be advanced for separating the budget function from the accounting division, and having the official in charge of budgets report to a senior executive who is not a member of the accounting division. In my opinion, the basic historical data used in preparing the budgets and in analysing variances from budget are in the accounting division, and therefore budget administration should be the responsibility of the Controller.

I do not mean that budgets should be prepared in their entirety by the accounting division. The various segments of the budgets should be prepared by the Departments which have the responsibility for the expenses and for carrying out the budget plans. The accounting division should not assume the responsibility for preparing budgets which cover the operations and plans of other departments. The accounting staff can advise and provide historical and other information, but the responsibility for developing future plans should rest with the Departments concerned. The Accounting Division should be responsible for the future plans of its operations, estimates of miscellaneous revenue, financing charges and other items which cannot be assigned to any other Department. However, an expense item which cannot be allocated to a Department raises the question whether the expense is necessary. The accounting division should compile the budget data from all parts of the Company into statements which clearly set out the plans of the various Departments.

### **Preparation of the Budget**

There are many ways to prepare a budget; every industry and every company have their particular problems. The procedure followed in preparing the budget for a rubber manufacturing company is quite different from the procedure followed by a utility company. You may find a very brief description of budget preparation at B.C. Electric of some interest. B.C. Electric generates and distributes electricity, produces and distributes manufactured gas, operates urban transit services



## BUDGETING AND LONG RANGE FORECASTING

and a freight business. Total gross revenues for 1954 exceeded \$59 million. Budgets for 1956 will have to be ready for the approval of the Directors by 15 December, 1955. This means the 1956 budgets are compiled during the late summer and fall of 1955 to allow time for changes and to be sure the deadline is met, and brings out the important point that the budgets for 1956 are compiled months before the complete actual results for 1955 are known.

The Sales Division reviews statistical information about electric and gas sales for the current year, for the last several years and for the current budget. The trends in electric and gas appliance sales are also considered by the Sales Division. From this historical data and from consultations with the Research Department as to future trends, estimates by months for 1956 are made of the number of consumers by rate code, the average consumption per consumer and average rate per unit. The Transportation Division is provided with historical data including trends in passengers carried, freight tonnage, revenue miles operated, etc. The forecasted increases or decreases are checked by the Research Department as to overall accuracy.

Estimated sales volumes as established are used by the operating departments to determine the volume of service which must be supplied during the budget period. In the Gas Division for instance, the number of tons of coal, barrels of oil, etc., which fluctuate directly with the volume of gas to be produced are estimated on a standard usage basis. In the transit operations the number of miles to be operated by particular fleets of vehicles, trolley coaches and gasoline buses are determined and the variable costs are calculated for maintenance, operators' wages, gasoline, electricity costs and so on.

Some of our direct costs and most of our indirect costs are fixed and are not related to volume. In these cases the supervisor responsible submits a budget based for the most part on historical data and existing staff, but takes future plans into account. Assuming it is acceptable to line organization, it becomes the budget allowance for the months of the following year.

The first line supervisor responsible for the Section or Department originates the budget request. Over 300 supervisors are involved in our budgeting procedures, and budget requests are reviewed by Line Organization and finally approved by the Division Head concerned.

After this preliminary review the Accounting Division summarizes the budget detail of the various departments and prepares an operating budget which shows the projected net income for the budget period. The President has a series of meetings with the Division Heads concerned and budgets are accepted, decreased or increased and finally approved by the Chief Executive. The objectives for the following year are thus established, and each Supervisor has played his part in making the plans, and can be held responsible for the results of the operations over

## COST AND MANAGEMENT

which he has control. Each supervisor is provided with details of his budget for the following year, and as the year progresses, monthly statements are issued which compare actual results with budget allowances. The monthly statements are discussed at Divisional meetings each month and, at least quarterly, the President reviews variances and results to date with each Division Head.

The capital expenditure budget is compiled in much the same way as the operating budget. When the capital expenditure budget is being reviewed, consideration is given to anticipated increases in volume as shown by the operating budget for the following year and the long term forecast. The timing of capital expenditure projects is important. Are they essential, desirable, contingent on growth, or will operating economies be realized from the new plant?

The five year forecast is a projection of the short term budget for four more years. The Research Department plays a major part in preparing the long term forecast of revenue as this involves the use of general statistics as well as statistics of our Company. The electric service revenues are influenced by the population growth in our areas, and more particularly by the growth or decline in family formations. There were fewer babies born during the depression and this is a factor which must be considered in forecasting the number of new families.

Other factors include the movement of people to the West Coast; the relationship of Commercial enterprises to residential consumers; increasing use of electrical appliances with its effect on average consumption. The Gas Service revenues are affected by these same factors and in addition, the temperature data for many previous years must be considered. The probability of natural gas being received next year has had an influence on gas usage, and the effect of natural gas on our revenues has received very careful study. Because transportation service has received stiff competition from the private automobile, statistics on automobile registrations must be considered as well as the effect of new suburban shopping districts. The Research Department compiles statistics concerning personal habits, such as the tendency for people to stay home and watch television.

All of these data pertain to general conditions not directly related to the Company. The Historical Charts for the past several years showing the MCF of gas used or passengers carried, as the case may be, are projected into the future, but the trend lines are adjusted upward or downward depending upon the importance attached to the general factors which will have a bearing on our operations.

I would not wish to leave you with the impression that we can accurately compute our revenues several years in advance. Charts, trend lines, historical data and so forth are carefully studied and the effect of this information on the final forecast should not be underestimated, but at best, the forecast is nothing more than an informed guess.

## BUDGETING AND LONG RANGE FORECASTING

All of the factors which are considered in establishing a long term forecast of revenues are also used in developing the capital expenditure program. In the electric and gas industries, considerable time elapses between the start and the completion of a major project; some hydro generating plants are under construction for several years before they become productive. Plans cannot be lightly changed after construction is started as usually several million dollars are involved. Historical and projected forecasts of load growth are under constant review by our Electrical Engineers and since the end of the war their ability to plan for the future has put our Company in a position of having available an abundance of power despite an unprecedented growth in consumers and in average consumption. No small measure of this success can be attributed to planning procedures in force in our Company.

You will appreciate that, in the time at my disposal, I must be brief and there is a good deal more to compiling our budgets and forecasts than I have covered here.

### Planning for the Future

Small companies make up a large part of our economy. An article on "Middle-Sized Management" appears in the May issue of "Fortune" and points out that three-quarters of all manufacturing companies in the United States have less than twenty employees. The management practices of large corporations are not always applicable to small businesses, and certain aspects of scientific management techniques may be a serious drain on smaller companies. However, small businesses have to plan for the future, too, and one of the valuable tools that any management, large or small, can use in planning is the budget. The problems of co-ordination, control and follow-up are not as involved in a small business because Management is closer to the actual operations.

Although in a small business the Accountant may have to actually prepare the budgets, he should endeavour to have the persons responsible for the various costs and sales performance accept the budgeted allowances as reasonable targets. I appreciate this may not be easy but, if it is not done, I would be afraid that when variances occur the responsible parties will blame faulty budgeting. In setting a budget the responsibility for carrying it out should be clearly fixed.

If a Company has no budget but is starting a budgetary control system, there are three requirements which I believe are essential to assure success. First, an organization chart should be prepared fixing the field of activity, and the responsibility of each supervisor. Let each member of the Management team know exactly what he is responsible for.

Secondly, revise or arrange the code of accounts to permit costs and revenues to be gathered by cost centres or in accordance with the organization chart. Some accountants find it difficult to understand this

## COST AND MANAGEMENT

because we are accustomed to gathering costs by type or kind of expense. A good budgetary system tries to fix responsibility for all costs and it is therefore essential that the costs for which each supervisor is responsible should be gathered together. A supervisor should only be asked to accept responsibility for costs which he can control.

The third requirement is to obtain the support of the Chief Executive. This may mean a selling job but if you are successful it will be worthwhile. The fact that the Chief Executive has meetings with the Operating officials and reviews the forecasts and the monthly statements starts a chain reaction, and every supervisor must become informed about the detail of his budget and the factors which have caused the actual results to vary from budget. This results in management at all levels being better informed about their operations, and develops a cost consciousness throughout the organization.

In considering the budget targets or objectives, let us not forget that a business exists to make a profit and, as it has been said, bankers and prospective investors are allergic to unprofitable enterprises. A reasonable return on the capital invested is a worthy objective, but determining the amount invested may present a problem as consideration should be given to the reduced value of today's dollar and the reproduction cost of plant. Earnings on Common Shares, particularly in relation to the earnings of previous years, may be set as an objective for the budget year. Some companies rely on sales volume to set the target, and a net return on sales which is considered satisfactory could be set as the objective. Regardless of the objective decided upon, it should be agreed to or set by the Chief Executive and approved by the Board of Directors.

The length of the budget or forecast period should be mentioned. The type of business is a factor in determining the length of period. For instance, rubber companies contract for their raw rubber supply one or two years in advance, food canning companies sometimes contract for crops years in advance, contracting companies increase or decrease their working force depending upon the number and type of jobs they are working on, utilities have a fairly steady revenue and so forth. These factors have a bearing on the length of the budget period. Here are a few examples of budget periods which have been adopted by some companies:

International Harvester Company prepares quarterly forecasts of sales for a year beyond the current quarter. DuPont of Canada budgets for 12 months ahead and this is revised every quarter; in addition, forecasts for five years ahead are prepared and revised semi-annually. Some industries such as the automotive industry use the sales forecast to base production schedules for the next quarter or half year and the forecasts are reviewed each month. Talon Incorporated, the largest manufacturer of slide fasteners, forecasts for a six month period and

## BUDGETING AND LONG RANGE FORECASTING

this forecast is revised each month. Long term objectives for the third year ahead are set annually by Westinghouse Divisions as targets of performance and a one year objective is also developed. B.C. Electric budgets for the fiscal year and has a long term forecast for five years.

In conclusion, let me summarize what I have said and perhaps add one or two new thoughts:

1. The purpose of budgets and forecasts is to provide tools which will assist management in carrying out its functions.

2. There are basic differences between the purposes of a budget or short term forecast and a long term forecast. Both assist management in planning and co-ordinating, but the short term forecast also provides a tool of control.

3. A budget system which includes all activities of the business is desirable. The operating budget will set objectives for the budget period; the capital expenditure budget will assist in establishing the need for, and the timing of, plant expansion; the cash forecast will show the need for further financing.

4. All levels of supervision should participate in the development of budgets. The accounting division should not assume the responsibility for the targets set by the budget; these should be determined by the Divisions, Departments and Sections which will have the responsibility of carrying out the plans.

5. Before a budget system can be successfully operated, it is essential that the responsibility for results be fixed; this can best be done by establishing or revising the organization chart. The code of accounts should be arranged so that costs can be gathered by cost centres, and there should be only one supervisor or key man responsible for each cost centre. The support of the Chief Executive is desirable if a budgetary system is to be successful.

6. The objectives or targets should be carefully chosen. Return on Investment, Earnings per Common Share, Net Return on Sales are suggested as targets. Whichever is decided upon, the Chief Executive should be satisfied that the objective is a worthy target for the Company to aim at during the budget period.

---

---

### FOR FURTHER READING

BUDGET INSTALLATION PROCEDURE—Ely Francis, *The Cont.*, June 1954.

BUDGETS ARE FOR PLANNING, COORDINATION AND CONTROL—H. C. Heiser, *NACA Bulletin*, Oct. 1951.

MANAGEMENT, PLANNING AND CONTROL THROUGH BUDGETS—R. D. Richardson, C. & M., Sept. 1954.

## ***Month-End Closing . . . In Minimum Time Lapse . . .***

At a meeting of the Niagara Chapter, two members were asked to state the practice of their companies in handling month-end closings. The subject is dealt with under specific headings, with the companies being referred to as Company (A) and Company (B).

*Give a brief outline of your Company's operations.*

Company (A) :

We have one plant in Welland with nine Sales Offices across the country. Although we manufacture for stock, the majority of our production is for specific customer requirements so that we are essentially a jobbing mill on a large scale. We make several thousand products which cost-wise are consolidated into about five thousand product classes. Our number of employees is fifteen hundred.

Company (B) :

We have three plants situated in Ontario and one at Montreal. Our products are Heavy Chemicals, Limestone Mining, and Human and Veterinary Pharmaceutical Products.

*How many statements and schedules do you publish, and how much time is involved in their preparation?*

Company (A) :

Since we operate under a budgetary control system, all of our statements show the current month and year-to-date with variances from budget. On the 8th working day after the closing, we issue a Profit and Loss Statement. On the 10th working day after closing, a complete set of statements are issued including the following:—

- (a) Sales, Selling Expense and Merchandising Profit by Branch
- (b) Summary of Variances, by type
- (c) Summary of Factory Variances, by type, by Factory Department
- (d) Administrative Expense
- (e) Statement of Working Capital
- (f) Forecast of Working Capital for the next quarter
- (g) Short Term Sales Forecast

Company (B) :

- (i) Time required to finalize monthly statements:

All financial reports on consolidated basis complete at the end of 7th working day, except for the 12th month or close of our fiscal period.

#### MONTH END CLOSING . . . IN MINIMUM TIME LAPSE

Account analyses are staggered for publication by the middle of the month following.

Various sales statistics for divisional sales managers, etc., published thereafter.

(ii) Statements and Schedules published by this deadline:

Consolidated sales analysis in detail by product, shipping point, factory profit—end of 4th working day of new month.

Plant ledgers are closed out at end of 5th working day, process or standard costs completed to permit closing and trial balances sent to General Office.

Consolidated Income statement and Balance Sheet complete end of 7th working day.

Analyses of P.P. & E. together with construction in progress reports—15th calendar day following.

Summary of Inventories—each plant prepares separate detailed reports on standard forms for consolidated summary report published on 16th calendar day of month following.

Various account analyses complete on 17th calendar day following.

Sales statistics, selling and warehousing expense reports follow with budget comparison.

*In order to meet this time, what pre-planning do you do, and do you make use of any schedules?*

Company (A):

Several years ago we changed to a set up in which the closing date is always on Saturday, thus the months of January and February are 4-week periods and March is a 5-week period all ending on a Saturday. At that time considerable planning was done to establish a deadline for source information, cost summaries, etc. Once the pattern was established, it no longer was necessary to issue written schedules every month.

Company (B):

The development of monthly work schedules well in advance of their use is most necessary where consolidation is done and is valuable in all instances. Pre-planning of the work programme helps to develop most of the problems that are likely to set back closings. It is not sufficient in these days of great haste in supplying management with financial reports to have problems influencing the closing—better progress is made when all details surrounding the closing are thought out and acted upon



## COST AND MANAGEMENT

well in advance. It is my experience that delays can be largely overcome by pre-planning. To solve a division's or an employee's problem will create a deeper interest for that group or the employee. Awareness of the importance of meeting schedules and an impressive demand for quick action stimulates, to my thinking, greater interest in what otherwise may seem to be unimportant routine.

*How do you manage to keep up with regular monthly work? Do you find it necessary to bring in any extra help during this period? Do you find you have any problem in keeping your staff occupied during the rest of the month?*

Company (A) :

Peak work periods are handled with relative ease partly due to the maintenance of flexible staff and partly to the particular organizational structure of the Cost Department. We have perpetual inventory control group of six (6) people, and a general cost accounting group of five (5), including supervisors. In addition, we have an estimating section of two (2) people. Since the peak work load periods of the first two groups occur at different times, we can schedule people in each group to assist the other. When possible, the estimating group also assist during the peak period. In the period immediately following the presentation of the financial statements, our people are occupied with preparation of sales reports, inventory analysis and other types of analytical cost work.

Company (B) :

Only certain personnel of the accounting staffs are burdened with month-end closings and then for a minimum of time. We consider it most practical to request and pay overtime to meet peak work loads but overtime is kept to a minimum. With minimum staff, the less active period of the month does not present problems.

*What types of machines do you use and what use is made of them?*

Company (A) :

The types of machines used are—punch card accounting machines, and of course, the calculators and adding machines. The major types of records on punch card equipment are as follows:—

- (a) Voucher Record
- (b) Voucher Record Distribution
- (c) Hourly Payroll Distribution

MONTH END CLOSING . . . IN MINIMUM TIME LAPSE

- (d) Distribution of Maintenance and Service Costs to Production Departments
- (e) Calculations of Absorption of manufacturing costs charged to Process Inventory accounts
- (f) Materials used and calculations of Variances from the Standard Prices
- (g) Summary of General Ledger Journals—these are posted to the General Ledger cards on a bookkeeping machine
- (h) Sales records of all types
- (i) Summary of Movement of Steel through in Process Inventories to Finished Goods

Company (B) :

Punched card accounting machines, and high speed calculators.

*Accounting Machines:*

**Payroll Work—** Payroll distribution available end of 1st day new month

Payroll registers prepared and cheques written  
Earnings records maintained and T4's run annually

**Materials—** Stockroom materials distribution — available 2nd working day new month

Quantity withdrawals — run every second day through month

**Sales—** Analysis monthly by product, shipping point, customer shipped

**Accounts Pay—** Coverage — all Canada

Machine writing of cheques

Accounts paid each Tuesday and Thursday

Cash Book run on machines

Disbursements controlled by type code for daily cash report and monthly cash forecast purposes

Voucher distribution, except plant ledgers

**General Ledger—**complete run of all General Ledger accounts

**Sales Statistical reports**

**Various expense account analyses.**

## COST AND MANAGEMENT

*When do you close off sales and accounts payable? How do you manage to pick up costs re prepaid freight on sales for unbilled charges?*

Company (A) :

The sales are closed as of the closing date. Sales made by the Branch offices which are billed from the Head Office, are closed on the first working day after the closing. This means that possibly one day's sales of distant branches may not get into the monthly closing.

Company (B) :

Sales are closed off at the end of the last working day of each calendar month at all locations to include shipments of that day. Accounts payables are closed out on the last working day of each month except at the end of our fiscal period. Principal inventories are kept current by taking in receipts through the last working day and recording of the liability on the books. Likewise, unusual expenses are set up.

Outstanding freight charges against sales remain unpaid at month-ends. These appear in an undistributed freight account.

*Do you make use of any short-cuts in the preparation of journal entries, and are the entries typed or written?*

Company (A) :

General Ledger Journals are typed. Factory Ledger Journals which are written, are pre-written with the account names to save time during the peak period.

Company (B) :

Much time is saved by handwriting journals in ink.

Standard monthly journals are pre-numbered for each of the 12 periods (65 standard for four locations).

*What type of cost system do you use?*

Company (A) :

We are in the process of installing a standard cost system which is to be tied into the accounting system. At the present moment, we have 4—In Process Inventories on standard; 4—In Process Inventories which are costed on a process cost basis; and 2—Process Inventories which are costed on job order basis. Our Finished Goods Inventories are costed on a process cost basis. For all of our inventories, we maintain a perpetual inventory record. Physical inventories are taken once per year. The inventories which are on the process cost basis are costed on the current average method.

## MONTH END CLOSING . . . IN MINIMUM TIME LAPSE

### Company (B) :

Process costs are used in three plants where the number of products are not too great and where large volumes of standard specification products are made. We do not manufacture custom products.

Standard costs are used in one plant where distance is a factor in timing of reports coming out of that location. These standard costs are also used because of the complexity of the manufacturing operations. Many of the departments such as tabletting, encapsulation and packaging handle such a vast number of products within a month and it is therefore a problem to develop actual costs within time limits.

*Do you make use of a factory ledger and what accounts do you include in this ledger? In your opinion how does this ledger save time?*

### Company (A) :

We maintain a factory ledger which includes the following accounts:—

- (1) Cost to Manufacture
- (2) Raw Materials
- (3) All Steel Inventory Accounts
- (4) Variance Accounts
- (5) Scrap and Spoilage Accounts

### Company (B) :

Factory ledgers are used giving plants and locations the following accounts:—

Miscellaneous receivables.  
Container deposits due from vendors.  
Drawback receivables.  
Plant, property and Equipment and reserve accounts.  
Inventories (sub-controlled as desirable by plant or office).  
Job Orders (Construction in progress).  
Prepaid Unemployment Insurance, property and business taxes,  
Workmen's Compensation.  
Deferred Charges.  
Miscellaneous cash advances to employees.  
Unvouchered invoices.  
Manufacturing Account.

The relative importance of plant ledgers seems to be that of maintaining accounts where the subsidiary detail is kept. It also tends to make for ease of operation.

## COST AND MANAGEMENT

*Give a brief run-down of the methods you use in calculating cost of sales and of the methods you use in determining and pricing inventories.*

Company (A) :

Actual factory cost incurred is charged to factory cost centres. With respect to the inventories which are on process and job cost, the factory cost is charged to inventory at a standard rate per machine hour. These hours are recorded on production reports submitted by the individual factory departments. The rate per hour includes labour, salaries, supplies, maintenance and utility costs and general factory overhead. In the inventories which are on standard cost, the cost is absorbed on the basis of units produced. The difference between actual cost incurred and cost absorbed is charged against profit through a volume variance account. As mentioned previously, current pricing is used in the accounts under the process cost system.

Company (B) :

Cost of sales are estimated on the first day of the month following and are used on early sales runs. Pricing of prior months' shipments is based on:

1. Inventory value—where sufficient stock is at hand.
2. Where the whole or part of the current month's production is sold—cost of sales are estimated by pre-valuing the month's production and coupling this with the prior month inventory carryover.

Inventory variations from estimating cost of sales remain in account for eleven months of the year and becoming P.M.A.'s in the following months.

Raw Materials and Finished Products are valued on the FIFO basis. Stockroom supplies, etc., on the latest representative quantity purchase price.

*What do you consider are the main contributing factors to reduction of time?*

Company (A) :

The major factors contributing to early closing are as follows:—

- (a) Elimination of cents in all cost calculations
- (b) Extensive use of punch card accounting machines
- (c) The use of Standard Cost System
- (d) Flexible Staff
- (e) Prompt closing of Sales and Voucher Record.

Company (B) :

- a. Use of accounting machines.
- b. Scheduling of work loads.
- c. Anticipation of probable or action on known problems.
- d. Creating and sustaining personnel interest.
- e. Cents elimination wherever practical.

s

h  
y  
e  
al  
p-  
n  
e  
d  
ce  
e

ag  
p-

n  
's  
ry

c-  
in

is.  
ty

on